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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,359	11/08/2001	Brian Hall Clark	006185-006	5256
7590 01/10/2005			EXAMINER	
James W. Peterson, Esquire Burns, Doane, Swecker & Mathis, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			LONEY, DONALD J	
			ART UNIT	PAPER NUMBER
			1772	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/986,359	<b>Applicant(s)</b> CLARK, BRIAN HALL	
	<b>Examiner</b> Donald Loney	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 3,4 and 7-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,17-21,23-26,28 and 29 is/are rejected.
- 7) ☒ Claim(s) 15,16,22 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 5, 6, 17-21, 23-26, 28 and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-28 of U.S. Patent No. 6004652. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims do not exclude the openings in the reinforcing layer due to the open claim language drawn to "comprising" and are broader in scope than the '652 claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 23, 24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Seksaria et al (5244745) or Blacklin et al (4411121).

Seksaria et al discloses a dimpled layer, wherein the dimples are spaced from one another and a planar reinforcing or face layer connected to the dimples. Refer to figures 1 and 2 in Seksaria et al showing a spaced (14) dimpled (16,22) sheet attached (18,26) to a face sheet (12). With respect for claims 23 and 28, with enough pressure the dimple would collapse and absorb at least some energy.

5. Claims 1, 2, 17, 23, 24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Blacklin et al (4411121).

Blacklin et al discloses a dimpled layer, wherein the dimples are spaced from one another and a planar reinforcing or face layer connected to the dimples. Refer to figures 6,7 and 11-13 in Blacklin et al showing a spaced (16) dimpled (12) sheet connected (13) to a face sheet (20). The dimples are non-uniformly spaced as shown in a figure 10.

6. Claims 1, 2, 5, 6, 23, 24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Jurisich (3622430).

Jurisich teaches a sheet with dimples extending from both sides. The dimples are not touching and misaligned (the dimple directly above another dimple extends in the opposite direction as shown in applicant's figure 10A). A face sheet is attached to each side of the dimples (i.e. two reinforcing face sheets are present). Refer to figures 1 and 2 in Jurisich showing dimpled sheet (32,33,34) attached to face sheets (25,34).

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7. Claims 1, 2, 5, 6, 23-25 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by either Takahashi et al (5156327).

Takahashi et al teaches a sheet with dimples extending from both sides. The dimples are not touching and misaligned (the dimple directly above another dimple extends in the opposite direction as shown in applicant's figure 10A). A face sheet is attached to each side of the dimples (i.e. two reinforcing face sheets are present). The panel can be planar or curved as shown in figures 1 and 2(b). Refer to figures 4 and 6 in Takahashi et al showing dimpled (13) sheet (11) attached two face layers (14a, 14b), which are substantially the same as applicant's figure 10A.

8. Claims 1, 2, 23, 24, 26, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Gustafsson (4028750).

Gustafsson teaches a two layers (10,21) both containing dimples (20a) on each side of a center positioned reinforcing layer (11). There are fastening means 15b used to connect the sheets at the dimples. Refer to figures 5 and 6. This rejection is being made to specifically address the limitations of claims 26 and 29. In the response to the arguments section below, the examiner establishes his position as to the new limitations added by the applicant as to the dimples moving under load.

9. Claims 1, 2, 5, 6, 17, 23, 24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Babinsky et al (5374468).

Babinsky et al teaches a sheet with dimples extending from both sides. The dimples are not touching and misaligned (the dimple directly above another dimple extends in the opposite direction as shown in applicant's figure 10A). A face sheet is

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attached to each side of the dimples (i.e. two reinforcing face sheets are present).

Dimples 108 in figure 8 are non-uniformly spaced (for instant claim 17) since they are closer together horizontally than vertically in the figure. The examiner has added this new rejection in order to clearly address the new limitation the applicant added in the last amendment filed October 13, 2004. The spacing of the dimples of Babinsky et al would clearly increase or decrease (i.e. move relative to one another) since the section connecting them are at about a 45 degree angle to the horizontal direction and not directly horizontal as shown in the prior art. If the panel got crushed from the top the dimples would spread out due to the flattening of the connection section. Refer to the approximately 45 degrees, to the horizontal, section that connects 90 and 92 in the right hand side of figure 3.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 18,19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Seksaria et al, Blacklin et al, Takahashi et al, Jurisich or Babinsky et al in view of either Seksaria (5124191) or Figge (4348442).

The primary references teach the invention substantially as recited except for the variations in size and/or spacing of the dimples.

Both secondary references teach that dimples can be various heights and have different spacing. Refer to figure 7 in Figge. Refer to figures 2 and 3 in Seksaria et al which teach the different size and spacing of the dimples in order to accommodate different sized objects and provide the sheet with desired strength and stiffness where desired (refer to the Abstract, column 1, lines 60-65, column 2, lines 23-33 and column 3, lines 35-50).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the shape and/or spacing of the dimples, as taught by Seksaria, motivated by the fact it would supply strength and stiffness to panel in the desired sections.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of Seksaria et al, Blacklin et al, Takahashi et al, Jurisich or Babinsky et al in view of Varner.

The primary references teach the invention substantially as recited except for the cavity being filled with a dynamic material.

Varner teaches to include foam pieces (i.e. dynamic material) in the cavities of a bubble (i.e. dimpled) layer that would provide added cushioning to the article. Refer to figures 2,5 and 7 along with column 8, line 57 through column 9, lines 1-18.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a dynamic material in the cavities of the primary references, as taught by Varner, in order to provide the desired cushioning to the final article, motivated by the fact that Varner teaches to include foam for this reason.

***Respons to Arguments***

13. Applicant's arguments filed October 13, 2004 have been fully considered but they are not persuasive. The applicant argues that the prior art, of Seksaria et al, Blacklin et al, Takahashi et al or Jurisich, fails to teach that the dimples will move in relation to each other under load, however, the examiner believes that upon a pulling force from each side (horizontally) of the panel that the dimples would move due to the stretching of the panel ever so slightly before it would tear. The applicant has failed to recite a positive structure that would supply the above characteristic, until claims 15 and 16, that would distinguish over the prior art. The examiner has also added the new rejection over Babinsky to even further show a structure that would read upon the instant claims. The double patenting rejection has been maintained since the instant claims are a scope broader than the instant claims and are encompassed thereby.

***Allowable Subject Matter***

14. Claims 15, 16, 22 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: The above claims are deemed allowable since the prior art fails to teach the corrugations connecting the dimples, the curved section between the dimples, the two dimple layers wherein one has non-uniformly spaced dimples and that the dimples of



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the two sheets are misaligned and the biasing element as recited in claims 15, 16, 22, and 27, respectively.

### ***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

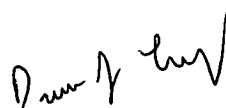
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-1493. The examiner can normally be reached on Mon, Tues, Thurs and Fri. 8AM-4PM, flex schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donald Loney  
Primary Examiner  
Art Unit 1772

DJL:D.Loney  
01/06/05